

ARCHITECTURAL MODELS, INC.,
a California corporation,

Appellant,

v.

NILS C. NEKLASON and
DONALD NUSBAUM doing business
as SCALE MODELS UNLIMITED,

Appellees.

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Defendants devote extensive sections of their brief to an attack on the validity of Plaintiff's patent based on prior art and inventorship. These issues are not involved in the appeal because the District Court's judgment was based on non-infringement only. Defendants apparently hope to obtain some help on the non-infringement issue by arguing validity issues, but full analysis of validity shows that Defendants infringe the patent deliberately to obtain the Plaintiff's improvements over the prior art.

The Prior Art

Defendants have attempted to enumerate all of the parts of Plaintiff's invention which are old in the prior art (Appellee's Brief, Pp. 2-7). What the Defendants have not done is comment on the two basic features of the invention which are new. Plaintiff's invention, as defined in the four patent claims in suit, was the first model making machine which (1) eliminated all support linkages between the cutting tool, stylus, and machine frame, and (2) consolidated the vertical adjustment into a small, compact router assembly.

Defendant Nusbaum described the prior art which the Defendants relied on in challenging the validity of the patent. He then admitted on cross-examination (TR. 756-768) that every one of those prior art structures had a movable support linkage for the cutter and stylus where the linkage was at least as long as one-half of the width of the model being cut. He colored these long linkages in green ink on Exhibits 3A, 3B, 4, 5, and 7.

The elimination of these movable linkages is very important to the machine of Plaintiff's invention. It was the principal reason why Plaintiff changed its machine in the first place. A machine is cumbersome to operate where the operator has to move a large mass of tool and support structure as he follows intricate lines on a topographical map. Plaintiff had known that the models could be made with a pantograph, but it rejected the use of a pantograph because a pantograph includes a large movable support linkage. (TR. 239-243)

The Defendants are paying tribute to the importance of this improvement by fighting so hard in challenging the validity of the patent. The Defendants have a second model making machine. The second machine can make the same models that the Defendants make on the infringing machine. Use of the second machine would not infringe the patent. Yet, Defendants are not content to avoid infringement by using their second



machine because the second machine is a pantograph. (CT. 25, paragraph n)

Thus, Plaintiff designed the machine of its invention to eliminate the pantograph linkage arms, and Defendants have found that elimination of the pantograph linkage is important enough to justify expensive litigation. This is not the first time that Plaintiff has stressed the importance of eliminating support linkage in the machine. Plaintiff stressed this feature to the Patent Office in the brief which was filed just before its patent application was allowed.

"It will be noted that there are several unique and interrelated features of this apparatus which make the apparatus both quite inexpensive to build and very efficient to operate even in the making of very large topographical models. Thus, the portion of the apparatus which is moved to guide the cutting tool around each topographical line is a single unitary assembly as shown in Fig. 4 which does not require any moving parts for guiding and supporting the cutting tool during its travel around the topographical line; the sole support from and relative movement with respect to the frame of the machine occurs at the support feet on the tool carrier where the tool carrier slides across the topographical map, and this manner of support permits the apparatus to be operated very efficiently on very large models while eliminating the necessity of strong and costly mechanisms for supporting and guiding the stylus and cutting tool around the frame of the apparatus. Applicants are able to employ such a simple compact stylus and cutting assembly because of the unique and novel arrangement they employ where the work 20 is supported upside-down above the topographical map; this support arrangement for the map and work permits the

tool carrier to employ the map supporting surface as its own support and guidance surface where other devices which have been made for this purpose have required independent support means for mounting the router on the frame members independently of both the map table and the work holding means. It will be noted in this regard that four features of the apparatus cooperate together to permit support of the tool and stylus on the table 12 solely by gravity, namely: (1) the mounting of opposed tool and stylus on a single unitary tool carrier which has downwardly facing feet; (2) the mounting of the table 12 and work 20 facing toward each other with the tool carrier between them; (3) the arrangement of the table 12 and work 20 in this manner where the work 20 is above the table, and (4) the mounting of the tool carrier on the frame resting on the table for free sliding movement over the table. The elimination of any one of these four features from the apparatus would destroy the ability of the apparatus to be made and function as described above." (Ex. 2, Pp. 56 - 58 with emphasis added)

This statement to the Patent Office is also material because it points out four structural features of Plaintiff's invention which are necessary to obtain elimination of the pantograph linkage: (1) unitary tool carrier, (2) table and work facing each other, (3) work above the table, and (4) tool carrier supported on table. None of the references cited by the Patent Office showed all of these features, and none of the references cited by Defendants show all of these features. Defendants' infringing machine does include all of these features and Defendants' machine thereby avoids use of the pantograph linkage.

There is another important aspect to this statement to the Patent Office. In it Plaintiff listed four essential features of the invention, but it didn't say anything about a "reverse print". The invention was a machine in which the four features were essential. Feature number 2 creates the mirror image problem because it requires that the table and work face toward each other so that the operator of the machine must see a mirror image of the model he makes. But since a mirror image map was merely something to be used with the invention (the machine was the invention), the mirror image map was not recited as an essential feature of the invention. The Defendants' machine includes all of the essential features of the machine of the invention, and hence the Defendants are using the invention regardless of the name they give to the piece of paper they put on the table.

Vertical Adjustment of The Router Assembly

The four claims involved in this suit relate to what the patent calls the "preferred form" of Plaintiff's invention where the accurate vertical adjustment is built into the compact router assembly instead of the main frame of the machine. Neither the prior art nor Plaintiff's first machine had this vertical adjustment in the router assembly. Plaintiff has always contended that this feature amounted to an invention in

and of itself regardless of what mechanism was used for the vertical adjustment.

At one time, the Defendants agreed. Defendants' counsel described this feature as the Defendants' "invention" before the Defendants knew that the Plaintiff had made the invention first (Ex. N). When Defendant Neklason testified about the time Defendants "invented" the rack and pinion, he described his state of mind as follows:

"Q. These two concepts you felt were new?

"A. Yes, sir.

"Q. Did you feel that the rack and pinion adjustment was new because of the fact that it was a rack and pinion or because of the fact that it provided the vertical adjustment of the machine in the router assembly?

"A. We felt it was new because it provided the vertical adjustment in the machine. The rack and pinion idea itself is an old idea.

"Q. And you felt that provision of the vertical adjustment in the router assembly was your idea?

"A. Yes, sir.

"Q. Do you think that is an important idea?

"A. I feel it is, yes.

"Q. Does it afford a substantial economic saving in the building of the machine?

"A. Very much so, yes.

"Q. Well, saving over what, over building it with a chain drive lift mechanism as in the machine Architectural Models employed?

"A. Substantial savings, yes.

"Q. Do you believe it is more efficient to use?

"A. Yes, sir.



- "Q. When did that concept of providing the motion in the router assembly occur to you? When did you first think of it?
- "A. It was sometime after Don and I had opened our business, and we felt that a contour machine, a topographic cutting machine, was going to be an asset for the business.
- "Q. This was more than two years after you had started using the topographical cutting machine at Architectural Models?
- "A. I believe so, yes.
- "Q. You had never thought of it before you left Architectural Models' employ?
- "A. To the best of my knowledge, no, sir.
- "Q. Were you satisfied academically with coming up with this concept? Did this seem to be important to you and --
- "A. We thought it was a good machine.
- "Q. Did you immediately recognize the concept of providing vertical adjustment in the router assembly as being a step forward in the art?
- "A. We may have.
- "Q. And this was one of the primary features of the machine which you and Mr. Nusbaum discussed which you thought you should see patent counsel about?
- "A. Yes, sir.
- "Q. When you were discussing the provision of a machine for cutting contours out of foam, did it seem to you that the provision of the vertical motion in the router assembly was the obvious thing to do?
- "A. I am sorry. The vertical position --
- "Q. The provision --
- "A. Oh.
- "Q. --of the vertical motion in the router assembly

was the obvious thing to do, or did you have some pride in the fact that you thought of providing that?

"A. I think we had some pride in coming up with our own design for our machine.

"Q. A particular pride in providing the vertical motion in the router assembly instead of in the legs of the table or in the overhead frame?

"A. Yes." (RT. 626 - 629)

This is the classic situation where an infringer lauded an invention until he discovered that he was the second inventor. Then he does an about face and argues that the invention is not patentable.

The Defendants' machine which is involved in this suit uses the vertical adjustment in the router assembly and the elimination of pantograph linkage arms, both features which Plaintiff invented.

Inventorship

During their listing of the things Plaintiff did not invent, Defendants refer to certain features of the invention which were suggested to one of Plaintiff's inventors by her father. Mr. Green suggested to Virginia Green that she could make her machine work if she mounted the plastic foam upside-down and used a reverse print of a topographical map. (TR. 451 - 454).

These facts are agreed upon. However, these facts do not put Mr. Green's suggestions in the prior art. These

facts merely raise this question: Were Mr. Green's suggestions so important that he should have been named as a joint inventor in the patent? It was the Defendants position below that the patent was invalid for faulty inventorship, not that Mr. Green's suggestions were prior art. Plaintiff contended that Mr. Green was not a joint inventor because he abandoned any claim to inventorship and did not claim to be an inventor when the patent application of Miss Green and Mrs. Johnston was shown to him (TR. 463 - 465). See Pointer v. Six Wheel Corp., 177 F.2d 153 (9th Cir., 1949).

This question may be debatable, and the District Court might have found that Mr. Green's suggestions were so important that he was a joint inventor. However, that finding would not influence the validity or scope of the patent because of the provisions of 35 USC §256 which are set forth in Appendix A.

No evidence whatsoever was presented that there was any deceptive intent in omitting Mr. Green as a joint inventor. Mr. Green had no invention agreement with anyone else (CT. 30). The Defendants claim no title interest in the invention from Mr. Green, and Plaintiff has an assignment from Mr. Green's heirs of any interest he may have had in the invention (CT. 28). Under these circumstances, faulty inventorship, even if Mr. Green was a joint inventor, could be corrected under the last paragraph of 35 USC §256 and would not absolve the Defendants of liability for infringement.

Defendants argue at page 18 that Plaintiff took the position with the Patent Office that the invention "embodied something new, namely, the use of a 'reverse print'," which the Plaintiff had invented. This is not true. The Dubosclard patent (Ex. 1) cited by the Patent Examiner showed the work and template facing toward each other so that a reverse print template was required. (Ex. 2, page 29 and Pp 34-35)

Plaintiff did not invent the reverse print, and it did not rely on the reverse print to distinguish the invention from the prior art. The invention is the machine. What Plaintiff relied on in distinguishing over the prior art is the list of four structural features of the machine quoted on page 4 above which, when used together, permit elimination of the pantograph linkage arms.

Defendants have eliminated the pantograph linkage arms from their machine by using all four of the features on which Plaintiff relied. These four structural features create the same reverse print problem in Defendants' machine as in Plaintiff's machines, and the operator of Defendants' machine must see a reverse print. Defendants' table is "adapted to support a reverse print" in the language of the claim. The name by which Defendants call their map, looking at the map from underneath the machine instead of from the operator's position, is a distinction in words not substance, if it is a distinction at all.

The cases cited by Defendants in support of their file wrapper estoppel argument are not in point here.

Lockwood v. Langendorf, 324 F.2d 82 (9th Cir., 1963) related to a much different situation. A structural feature of the invention, the bottom of the upper tray being inside the top of the lower tray, was missing from the accused device. It had been necessary to recite that structural feature in the patent claims to distinguish from the prior art. In the present case, the reverse print is not a structural feature of the invention; instead it is a feature which relates to the manner of use of the machine. There is a structural feature of the invention which creates the need for a reverse print, that is the table and work facing toward each other. This structural feature is recited in the claims, and Defendants' machine has this structural feature.

The doctrine of file wrapper estoppel does not apply in every case where a claim has been amended. As this court explained in International Mfg. Co. v. Landon, Inc., 336 F.2d 723, 142 USPQ 421 at 424 (9th Cir., 1964):

"Predicated on these transactions, which we have set out in barest outline, Jacuzzi Bros. argues that the purpose of the cancellation of claims 5 and 8 through 10, and the assertion of the four eventually-allowed claims was to define the filter element assembly in specific details in a manner which excluded sock-type filter elements. Accordingly, the company contends, Landon may not now expand his claim to include a type of filter element which was purposefully excluded from the Pace claims.

"It must be assumed that the redefinition of the filter element, as contained in the added claims which were incorporated in Pace, was purposeful. But this alone would not give rise to file wrapper estoppel so as to preclude patent coverage, on the theory of equivalency, of kinds of filter elements included in the first definition but not in the second. It must also appear that the redefinition was necessary to obtain the patent."

In the present case, the reverse print was old, and the Patent Examiner did not allow the claims when they were amended to mention a reverse print. Instead, the Examiner rejected the claims again on substantially the same grounds thereby indicating that he did not consider the reference to a reverse print necessary to obtain the patent. The Examiner allowed the claims only after it was pointed out in a later brief that the claims recited the four structural elements listed above where none of the references had those four elements. Defendants' machine has all four of those elements.

THE PAPER PATENT ARGUMENT

The paper patent argument is found in many reported cases, but in every case it is a "make weight" argument. It is the reverse of the "commercial success" argument which patent plaintiffs urge to sustain their patents. Patent defendants say that there has been no commercial success and hence the patent is a paper patent entitled to little consideration. As the Court said in Reinharts, Inc., v. Caterpillar Tractor Co., 85



"Furthermore, appellant's proposition -- that these patents, if not in practical use at the time of the trial, must be strictly limited to the structure specifically disclosed in their specifications and drawings--cannot be sustained. The authorities cited by appellant⁸ do not lay down any such rule. They merely hold that long-continued non-use of a patented invention may have a bearing on the construction to be given the patent, and that the courts, in construing such a patent, are not disposed to give it a broader scope than is clearly required. They do not hold that such a patent must be strictly limited to the specific structure disclosed in its specifications and drawings. Much less do they hold that a patent must be so limited, merely because of non-use at the time of the trial. A patented invention, whether used or unused, is measured, not by the specifications and drawings, but by the claims of the patent. See authorities heretofore cited."

The paper patent argument is weak to start with. In the present case, we don't even have a paper patent. The patent shows two machines in Fig. 1 and Fig. 3. The machine of Fig. 1 has not been built, but Plaintiff has built two machines like the machine of Fig. 3. One of the machines is shown in Ex. HH and is substantially identical to Fig. 3. The other machine is shown in Ex. II reproduced in Appellant's Opening Brief.

Thus, we are not confronted with a paper patent. We have a patent which is one-half paper and one-half commercial success. It is submitted that the paper patent argument diminishes to the vanishing point.

The interesting thing about this argument is the analysis of where it leads us in patent cases generally. De-

fendants admit after much dispute that Plaintiff's second machine had a rack and pinion vertical adjustment in the router assembly.

"That is to say, the rack and pinion of the router for the 'second machine' was intended, and was used only for rough adjustments; it was not used for 'accurate vertical adjustment'." (Appellee's Brief, Page 30).

What Plaintiff built was not the exact vertical adjustment shown in Fig. 1, a screw arrangement, but it was a vertical adjustment nevertheless. Defendants say that the patent is a paper patent as far as vertical adjustments in the router assembly are concerned because Plaintiff didn't build the one shown in the patent, though they built a different one. This argument ignores the realities of life because many patent owners who achieve great commercial success do so by manufacturing forms of their inventions which do not in all respects conform to the devices shown in their patents.

Where the inventor's machine has been constructed before the patent is written, parts of the machine are often omitted or changed in the patent drawings to eliminate immaterial features and simplify the job of illustration and description. Where the inventor's machine has not been constructed before the patent is written, the machine is often improved before it is made so that the machine which eventually achieves commercial success is slightly different from the patent drawings.

The Defendants' argument would penalize both classes of these inventors because the Defendants would say that their patents are paper patents showing devices which had never been built.

The irony of the situation is pathetic when the difference between what is made versus what is shown in the patent is the difference between a rack and pinion and a screw. It is difficult to imagine two more classic equivalents than the screw and the rack and pinion. Both devices are centuries old, so old that the identity of their inventors is lost in antiquity. Both devices are used interchangeably. The encyclopedia, cited in Appellant's Opening Brief, shows that both are used as simple jacks. Plaintiff considered using both of them before the patent application was filed. Adjudicated cases are rare on the equivalency of any two specific items, but a rack and pinion has been held to be the equivalent of a frictional drive in Dear Rubber Mfg. Co. v. Killian, 106 F.2d 316, 42 USPQ 493 (8th Cir., 1939).

" a rack and pinion gear drive is a well-known substitute for a friction drive even in the most narrow range of equivalents."
(At. 42 USPQ 496)

DEFENDANTS' 35 USC §112 ARGUMENT ON EQUIVALENTS

Defendants place great emphasis on the last paragraph of §112 in arguing that the means clause of Claim 14 should be limited to the scope of Claim 11.



In the first place, it should be noted that Defendants are attempting to use the paper patent limitation of Claim 11 as a limitation on Claim 14. Plaintiff may not have built the screw mechanism of Claim 11, leaving Claim 11 as a "paper patent" to be narrowly construed. But Plaintiff has built the structure defined by Claim 14. It is illogical to say that the narrow range of equivalents of Claim 11 which is based on the paper patent status of that claim applies to Claim 14 which is not a paper patent under any argument.

Defendants argued extensively (Appellees' Brief Pp 26-29) before admitting that Plaintiff had built a vertical adjustment in the router assembly. There is no stipulation or res judicata to the contrary. The trade secret which Defendants did not learn from Plaintiff was the concept of making the sole, only, accurate vertical adjustment in the router assembly. Plaintiff's second machine which has the rack and pinion did not use this trade secret because it also had an accurate vertical adjustment in the main frame. (Ex. II).

Coming back to the §112 problem, this argument is not new. It was advanced, to no avail, by the present Defendants' counsel in Atlas Pacific Engineering Co. v. George Ashlock Co., 339 F.2d 288, 144 USPQ 55 (9th Cir., 1964). The argument fails because §112 does not apply to every means clause in a claim. Some history is necessary here.

Patent claims must define an invention structurally, not merely in terms of the overall function or result which an



invention is intended to accomplish except where §112 specifically permits functional language, Broad claims which define a structure as "means" for accomplishing a result have been attacked as invalid for functionality. The original classic case on the subject is the Continental Paper Bag Co. v. Eastern Paper Bag Co., 210 U.S. 405 (1908). There the court held that the means clause in a claim was not functional because it recited structural features in support of the means by which the result was accomplished. In a later case, Halliburton Oil Well Cementing Co. v. Walker, 329 U.S. 1 (1946), the court held that the means clause was functional and the patent invalid because the means clause did not recite any structural relation in support of the means for accomplishing the result. Section 112 of the Statute was passed to overrule the Halliburton Case. See: Commentary On the New Patent Act, Federico, United States Code Annotated, West. Pub. Co., Title 35, Vol. 1, Page 1, 25. The last paragraph of §112 reads as follows:

"An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof." (66 Stat. 798, 1952, emphasis added).

The Statute overrules Halliburton by permitting a means clause which will be limited to the means shown and equivalents. Note, however, that the Statute by its express terms applies only to the Halliburton type means clause where no structure in sup-

port of the means is recited in the claim. The Statute does not apply to the Paper Bag type of means clause where structural features in support of the means are recited.

The "means" clause in the Paper Bag case read, "operating means for the forming plate adapted to cause the said plate to oscillate about its rear edge upon the surface of the cylinder during the rotary movement of said cylinder," 210 U.S. at 417, and the Supreme Court said, "The claim is not for a function, but for a mechanical means to bring into working relation the folding plate and the cylinder." (210 U.S. at 422).

Claim 14 is not for a function (vertical adjustment) but for a mechanical means to bring into working relation the router and the body. The means clause of Claim 14 reads, "adjustable connecting means interconnecting said router and said body for adjustably positioning. . . ." The "means" has a connection to the router and a connection to the body which are structural features supporting the function "for adjustably positioning". The means clause in the Paper Bag case was held to be infringed by a different structure than that shown in the patent even though the patent was a paper patent. The same result should follow in this case.

The means of Claim 14 is not limited to the means of Claim 11. Why have two different claims if they mean the same thing? As the Supreme Court said in Smith v. Snow, 294 U.S. 1, 14 (1935), "Thus, by striking an obviously intended contrast with other claims, Claim 1 covers broadly. . . ."

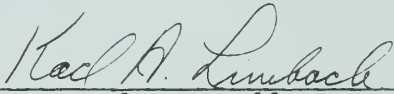
"Whenever a patent is issued on the application of persons as joint inventors and it appears that one of such persons was not in fact a joint inventor, and that he was included as a joint inventor by error and without any deceptive intention, the Commissioner may, on application of all the parties and assignees, with proof of the facts and such other requirements as may be imposed, issue a certificate deleting the name of the erroneously joined person from the patent.

"Whenever a patent is issued and it appears that a person was a joint inventor, but was omitted by error and without deceptive intention on his part, the Commissioner may, on application of all the parties and assignees, with proof of the facts and such other requirements as may be imposed, issue a certificate adding his name to the patent as a joint inventor.

"The misjoinder or nonjoinder of joint inventors shall not invalidate a patent, if such error can be corrected as provided in this section. The court before which such matter is called in question may order correction of the patent on notice and hearing of all parties concerned and the Commissioner shall issue a certificate accordingly." (35 USC §256)

CERTIFICATE OF COUNSEL

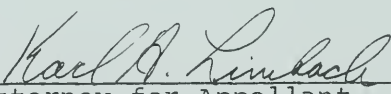
I certify that, in connection with the preparation of this Brief, I have examined Rules 18, 19 and 39 of the United States Court of Appeals for the Ninth Circuit, and that, in my opinion, the foregoing Brief is in full compliance with those Rules.



Attorney for Appellant

CERTIFICATE OF SERVICE BY MAIL

I hereby certify that I have mailed three copies of the foregoing Brief to Harvey G. Lowhurst, 2500 El Camino Real, Palo Alto, California, this 20th day of December, 1967.



Attorney for Appellant

